APPENDIX A

RID=1105489063-30856-30166294485.BLASTQ4、

http://www.ncbi.nlm.nih.gov/BLAST/Blast.cgi

```
>gi|31795107|gb|AC005383.2|  ☰⬛ Homo sapiens chromosome 10 clone CIT967SK-114G6 map 10q25.1, complete
            sequence
         Length = 121774

Score = 1405 bits (709), Expect = 0.0
Identities = 747/753 (99%), Gaps = 5/753 (0%)
Strand = Plus / Plus


Query: 2614  ggattcttgagncgccccctgaggcacatggctccgtgcaggagggcagcagccgtaccc  2673
             || ||||||||| |||||| ||||||||||||| ||| ||||||||||||||||||||||
Sbjct: 78153 ggattcttgagacgcccctgaggcacatggctccgtgtgcaggagggcagcagccgtaccc 78212


Query: 2674  ctcccagcaactacagagaaggcctgggcactgaaatggtgcctacccctggaatgtcc  2733
             |||||||||||||||||||||||||||||||||||||||||||||| |||||||||||||
Sbjct: 78213 ctcccagcaactacagagaaggcctgggcactgaaatggtgcctacctcctggaatgtct 78272


Query: 2734  gtgccccaggtccttagaatgtctgcttcccgccgtggccaggaccactactcctcactga  2793
             || |||||||||||||||||| || ||||||||||||||||||||||||||||||||||||
Sbjct: 78273 gtgccccaggtccttagaatgtctgcttcccgccgtggccaggaccactactcctcactga 78332


Query: 2794  gggaggaggacgtcccaactgcagccatgctgcttagagacaagaaagcagctgatgtca  2853
             |||||||||||||| || |||| |||||||||||||||||||| |||| |||||||||||
Sbjct: 78333 gggaggaggacgtcccaactgcagccatgctgcttagagacaagaaagcagctgatgtca 78392


Query: 2854  cccacaaacgatgctgctgaaaagtcctgatgtgtaagtaaatacccactttctgtacct  2913
             |||||||||||||| ||||||||||||||||||| ||| |||||||||||||||||||||
Sbjct: 78393 cccacaaacgatgctgctgaaaagtcctgatgtgtaagtaaatacccactttctgtacct 78452


Query: 2914  gctgtgccctgctgaggctatgtcatctgccacccttcccttgaggataaacaaggggtc  2973
             |||||||| |||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 78453 gctgtgccctgctgaggctatgtcatctgccacctttcccttgaggataaacaaggggtc 78512


Query: 2974  ctgaagacctaaatttagcggcctgacgttccttgcacacaatcaatgctcgccagaat  3033
             ||||| ||||||||||||||||||||||||||||||||||||||| |||||||||||||
Sbjct: 78513 ctgaagacttaaatcctagcggcctgacgtccttcgcacacaatcaatgctcgccagaat 78572


Query: 3034  gttgttgacacagtaatgcccagcagaggcctttactagagcatcctttggacggcgaag  3093
             ||||||||||||||||||||||||||||||||||| ||| ||||||||||||||||| |||
Sbjct: 78573 gttgttgacacagtaatgcccagcagaggcctttactagagcatcctttggacggcgaag 78632


Query: 3094  gccacggcctttcaagatggaaagcagcagctcttccacttcccagagcattctggat  3153
             |||||||||||||||||||||||||||||||||| ||||||||||||||||||||||||
Sbjct: 78633 gccacggcctttcaagatggaaagcagcagctcttccacttcccagagacattctggat 78692


Query: 3154  gcatttgcactgagtctgaaaggggggcttgagggacgttcgtgacttcttggcgactgcc  3213
             |||||||||||||||||||||||||||| |||||||||||||| |||||| ||||||||||
Sbjct: 78693 gcatttgcactgagtctgaaagggggcctgagggacgttcgtgacctc-tggcgactgcc 78751


Query: 3214  ttttgtgtgtggaagagacttggaaaggtcctcagactg-aatgtgaccaattaaccagct  3272
             |||||||||||||||||||||||||||||||||||| ||  ||||||||||||||||||||
Sbjct: 78752 ctttgtgtgtggaagagacttggaaaggtcctcagactgaatgtgaccaattaaccagct 78811


Query: 3273  tggttgatgacggggagggctgagttgtgc-atgggcccaggtctgga-gggcacgt  3330
             || |||||||||||||||||||| ||||| |||||||||||||||||  ||||||||
Sbjct: 78812 tgtttgatcgtggggagggggctgag-tgtgcaatgggcccaggtctggagggggcacgc 78870


Query: 3331  aaaatcgttctgagtcgtgagcagtgtccacct  3363
             |||||||||||| | | ||||||||||||||||
Sbjct: 78871 aaaatcgttctgagtcgtgagcagtgtccacct 78903




Score = 1140 bits (575), Expect = 0.0
Identities = 575/575 (100%)
Strand = Plus / Plus


Query: 1324  gccctgaagctgagcctggaatgcagggtccgacctcctcttcctgctggacagctctgcg  1383
             ||||| | || ||||||||||||||||| ||||||||| || |||||||||| ||||||||
Sbjct: 72874 gccctgaagctgagcctggaatgcagggtcgacctcctcttcctgctggacagctctgcg 72933


Query: 1384  aacaccacctccacccgcctcctacaagccaaaatcttcatcaagcaacttctccacggcc  1443
```

RID=1105489063-30856-30166294485.BLASTQ4,   http://www.ncbi.nlm.nih.gov/BLAST/Blast.cgi

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            ÏÏ¡¡¡¡¡¡¡¡¡Ï¡¡¡ÏÏ¡¡¡¡¡¡¡Ï¡ÏÏÏ¡¡¡¡¡Ï¡¡¡¡¡ÏÏ¡Ï¡ÏÏ¡¡¡¡ÏÏÏÏ¡¡
Sbjct: 72934  ggcaccactctggacggcttcctgcgggccaaagtcttcgtgaagcggtttgtgcgggcc  72993

Query: 1444   gtgctgagcgaggactctcgggcccgagtgggtgtggccacatacagcagggagctgctg  1503
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||| |||
Sbjct: 72994  gtgctgagcgaggaccctcgggcccgagtgggtgtggccacatacagcagggagctgctg  73053

Query: 1504   gtggcggtgcctgtggggagtaccaggatgtgcctgacctggtctggagcctcgatggc  1563
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 73054  gtggcggtgcctgtgggggagtaccaggatgtgcctgacctggtctggagcctcgatggc  73113

Query: 1564   attcccttccgtggtggccccaccctgacgggcagtgccctgcggcaggcggcagagcgt  1623
              |||||||||||||||||||||||||||||||||||||||| |||||||||||||||||||
Sbjct: 73114  attccccttccgtggtggccccaccctgacgggcagtgccttgcggcaggcggcagagcgt  73173

Query: 1624   ggcttcgggagcgccaccaggacaggccaggaccggccacgtagagtggtggtttttgctc  1683
              |||||||||||||||||||||||||||| ||||| |||||||||||||||| |||||||||
Sbjct: 73174  ggcttcgggagcgccaccaggacaggccaggaccggccacgtagagtggtggtttttgctc  73233

Query: 1684   actgagtcacactccgaggatgaggttgcgggcccagcgcgtcacgcaagggcgcgagag  1743
              |||||||||||||||||||||||||||||||| |||||||| |||||||||||||||||||
Sbjct: 73234  actgagtcacactccgaggatgaggttgcgggcccagcgcgtcacgcaagggcgcgagag  73293

Query: 1744   ctgctcctgctgggtgtaggcagtgaggccgtgcgggcagagctggaggagatcacaggc  1803
              |||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Sbjct: 73294  ctgctcctgctgggtgtaggcagtgaggccgtgcgggcagagctggaggagatcacaggc  73353

Query: 1804   agcccaaagcatgtgatggtctactcggatcctcaggatcctgttcaaccaaatccctgag  1863
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 73354  agcccaaagcatgtgatggtctactcggatcctcaggatcctgttcaaccaaatccctgag  73413

Query: 1864   ctgcaggggaagctgtgcagccggcagcggccagg  1898
              |||||||||||||||||||||||||||||||||||
Sbjct: 73414  ctgcaggggaagctgtgcagccggcagcggccagg  73448
```

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Score = 1076 bits (543), Expect = 0.0
Identities = 553/555 (99%), Gaps = 1/555 (0%)
Strand = Plus / Plus

Query: 1895   cagggtgccggacacaagccctggacctcgtcttcatgttggacacctctgcctcagtac  1954
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 75871  cagggtgccggacacaagccctggacctcgtcttcatgttggacacctctgcctcagtag  75930

Query: 1955   ggcccgagaattttgctcagatgcagagctttgtgagaagctgtgccctccagtttgagg  2014
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 75931  ggcccgagaattttgctcagatgcagagctttgtgagaagctgtgccctccagtttgagg  75990

Query: 2015   tgaaccctgacgtgacacaggtcggcctggtggtgtatggcagccaggtgcagactgcct  2074
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 75991  tgaaccctgacgtgacacaggtcggcctggtggtgtatggcagccaggtgcagactgcct  76050

Query: 2075   tcgggctggacaccaaacccacccgggctgcgatgctgcgggccattagccaggcccct  2134
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 76051  tcgggctggacaccaaacccacccgggctgcgatgctgcgggccattagccaggcccct  76110

Query: 2135   acctaggtggg-tgggctcagccggcaccgccctgctgcacatctatgacaaagtgatga  2193
              |||||||||| | |||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 76111  acctaggtggggtgggctcagccggcaccgccctgctgcacatctatgacaaagtgatga  76170

Query: 2194   ccgtccagaggggtgcccggcctggtgtccccaaagctgtggtggtgcccacaggcggga  2253
              ||||||||||||||||| |||||||||||||||||||||||||||||||||||||||||||
Sbjct: 76171  ccgtccagaggggtgcccggcctggtgtccccaaagctgtggtggtgctcacaggcggga  76230

Query: 2254   gaggcgcagaggatgcagccgttcctgcccagaagctgaggaacaatggcatctctgtct  2313
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 76231  gaggcgcagaggatgcagccgttcctgcccagaagctgaggaacaatggcatctctgtct  76290

Query: 2314   tggtcgtgggcgtggggcctgtcctaagtgagggtctgcggagggcttgcaggtcgccggg  2373
```

```
                    |||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 76291  cggtcgtgggcgtggggcctgtcctaagtgagggtctgcggaggcttgcaggtccccggg 76350


Query: 2374   attccctgatccacgtggcagcttacgccgacctgcggtaccaccaggacgtgctcattg 2433
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 76351  attccctgatccacgtggcagcttacgccgacctgcggtaccaccaggacgtgctcattg 76410


Query: 2434   agtggctgtgtggag 2448
              |||||||||||||||
Sbjct: 76411  agtggctgtgtggag 76425




Score =  626 bits (316), Expect = e-176
Identities = 316/316 (100%)
Strand = Plus / Plus


Query: 2     acagtgttcgcggctgcaccgctcggaggctgggtgacccgcgtagaagtgaagtacttt 61
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 26189 acagtgttcgcggctgcaccgctcggaggctgggtgacccgcgtagaagtgaagtacttt 26248


Query: 62    tttatttgcagacctgggccgatgccgccttaaaaaacgcgaggggctctatgcacctcc 121
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 26249 tttatttgcagacctgggccgatgccgccttaaaaaacgcgaggggctctatgcacctcc 26308


Query: 122   ctggcggtagttcctccgacctcagccgggtcgggtcgtgccgccctctcccaggagaga 181
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 26309 ctggcggtagttcctccgacctcagccgggtcgggtcgtgccgccctctcccaggagaga 26368


Query: 182   caaacaggtgtcccacgtggcagccgcgccccgggcgcccctcctgtgatcccgtagcgc 241
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 26369 caaacaggtgtcccacgtggcagccgcgccccgggcgcccctcctgtgatcccgtagcgc 26428


Query: 242   cccctggcccgagccgcgcccgggtctgtgagtagagccgcccgggcaccgagcgctggt 301
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 26429 cccctggcccgagccgcgcccgggtctgtgagtagagccgcccgggcaccgagcgctggt 26488


Query: 302   cgccgctctccttccg 317
             ||||||||||||||||
Sbjct: 26489 cgccgctctccttccg 26504




Score =  391 bits (197), Expect = e-105
Identities = 197/197 (100%)
Strand = Plus / Plus


Query: 699   aggagggcgcacggagacggaacttgctctgaaataccttctgcacagagggttgcctgg 758
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 59676 aggagggcgcacggagacggaacttgctctgaaataccttctgcacagagggttgcctgg 59735


Query: 759   aggcagaaatgcttctgtgccccagatcctcatcatcgtcactgatgggaagtcccaggg 818
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 59736 aggcagaaatgcttctgtgccccagatcctcatcatcgtcactgatgggaagtcccaggg 59795


Query: 819   ggatgtggcactgccatccaagcagctgaaggaaaggggtgtcactgtgcttgctgtggg 878
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 59796 ggatgtggcactgccatccaagcagctgaaggaaaggggtgtcactgtgcttgctgtggg 59855


Query: 879   ggtcaggcttcccaggt 895
             |||||||||||||||||
Sbjct: 59856 ggtcaggcttcccaggt 59872




Score =  335 bits (169), Expect = 4e-88
Identities = 169/169 (100%)
Strand = Plus / Plus
```

RID=1105489063-30856-30166294485.BLASTQ4,   http://www.ncbi.nlm.nih.gov/BLAST/Blast.cgi

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Query:  2447  agaagccaagcagccagtcaacctctgcaaacccagcccgtgcatgaatgagggcagctg  2506
              |||||||||||||||||||||||||||||||||||||||||||||||||?|||||||||||
Sbjct:  77174  agaagccaagcagccagtcaacctctgcaaacccagcccgtgcatgaatgagggcagctg  77233


Query:  2507  cgtcctgcagaatgggagctaccgctgcaagtgtcgggatggctgggagggcccccactg  2566
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct:  77234  cgtcctgcagaatgggagctaccgctgcaagtgtcgggatggctgggagggcccccactg  77293


Query:  2567  cgagaaccgtgagtggagctcttgctctgtatgtgtgagccagggatgg  2615
              ||||||||||||||||||||||||||||||||||||||||?||||||||||
Sbjct:  77294  cgagaaccgtgagtggagctcttgctctgtatgtgtgagccagggatgg  77342
```

 Score = 272 bits (137), Expect = 5e-69
 Identities = 137/137 (100%)
 Strand = Plus / Plus

```
Query:  891  caggtgggaggagctgcatgcactggccagcgagcctagagggcagcacgtgctgttggc  950
             |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct:  64847  caggtgggaggagctgcatgcactggccagcgagcctagagggcagcacgtgctgttggc  64906


Query:  951  tgagcaggtggaggatgccaccaacggcctcttcagcaccctcagcagctcggccatctg  1010
             |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct:  64907  tgagcaggtggaggatgccaccaacggcctcttcagcaccctcagcagctcggccatctg  64966


Query:  1011  ctccagcgccacgccag  1027
              |||||||||||||||||
Sbjct:  64967  ctccagcgccacgccag  64983
```

 Score = 270 bits (136), Expect = 2e-68
 Identities = 136/136 (100%)
 Strand = Plus / Plus

```
Query:  1025  cagactgcagggtcgaggctcacccctgtgagcacaggacgctggagatggtccgggagc  1084
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct:  65652  cagactgcagggtcgaggctcacccctgtgagcacaggacgctggagatggtccgggagt  65711


Query:  1085  tcgctggcaatgccccatgctggagaggatcgcggcggaccccttgcggtgctggctgcac  1144
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct:  65712  tcgctggcaatgccccatgctggagaggatcgcggcggaccccttgcggtgctggctgcac  65771


Query:  1145  actgtcccttccacag  1160
              ||||||||||||||||
Sbjct:  65772  actgtcccttctacag  65787
```

 Score = 270 bits (136), Expect = 2e-68
 Identities = 136/136 (100%)
 Strand = Plus / Plus

```
Query:  455  tgatgtggtgctcggctgcagtggacatcatgtttctgttagatgggtctaacagcgtcg  514
             |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct:  41851  tgatgtggtgctcggctgcagtggacatcatgtttctgttagatgggtctaacagcgtcg  41910


Query:  515  ggaaagggagctctgaaaggtccaagcacttgccatcacagtctgtgacggtctggaca  574
             |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct:  41911  ggaaagggagctctgaaaggtccaagcacttgccatcacagtctgtgacggtctggaca  41970


Query:  575  tcagccccgagagggt  590
             ||||||||||||||||
Sbjct:  41971  tcagccccgagagggt  41986
```

RID=1105489063-30856-30166294485.BLASTQ4.   http://www.ncbi.nlm.nih.gov/BLAST/Blast.cgi

```
 Score = 220 bits (111), Expect = 2e-53
 Identities = 111/111 (100%)
 Strand = Plus / Plus

Query: 588   ggtcagagtgggagcattccagttcagttccactcctcatctggaattccccttggattc 647
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 48121 ggtcagagtgggagcattccagttcagttccactcctcatctggaattccccttggattc 48180


Query: 648   attttcaacccaacaggaagtgaaggcaagaatcaagaggatggctttcaa 698
             |||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 48181 attttcaacccaacaggaagtgaaggcaagaatcaagaggatggctttcaa 48231
```


```
 Score = 218 bits (110), Expect = 7e-53
 Identities = 110/110 (100%)
 Strand = Plus / Plus

Query: 1215  aggccctgtgactcgcagccctgccagaatggaggcacatgtgttccagaaggactgga 1274
             |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 71797 aggccctgtgactcgcagccctgccagaatggaggcacatgtgttccagaaggactgga 71856


Query: 1275  cggctaccagtgcctctgcccgctggccttggagggggaggctaactgtg 1324
             ||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 71857 cggctaccagtgcctctgcccgctggccttggagggggaggctaactgtg 71906
```


```
 Score = 153 bits (77), Expect = 3e-33
 Identities = 77/77 (100%)
 Strand = Plus / Plus

Query: 378   agtgcccccatctctccctctccaggaagtccatgtaagcaaagaaaccatcgggaagat 437
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 40585 agtgcccccatctctccctctccaggaagtccatgtaagcaaagaaaccatcgggaagat 40644


Query: 438   ttcagctgccagcaaaa 454
             |||||||||||||||||
Sbjct: 40645 ttcagctgccagcaaaa 40661
```


```
 Score = 117 bits (59), Expect = 2e-22
 Identities = 59/59 (100%)
 Strand = Plus / Plus

Query: 1159  agctggaagagagtgtccccaacccaccctgccacctgctacaggaccacctgccagg 1217
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 69450 agctggaagagagtgttcctaacccaccctgccacctgctacaggaccacctgccagg 69508
```


```
 Score = 117 bits (59), Expect = 2e-22
 Identities = 62/63 (98%)
 Strand = Plus / Plus

Query: 317   gttatatcaacatgcccccttccctgctgctggaggccgtctgtgccttcctgcttccca 376
             |||||||||||||||||||||||||||||||||||| |||||||||||||||||||||||
Sbjct: 35639 gttataccaacatgcccccttccctgctcgctggaagccgtctgtgtttcctgctttcca 35698


Query: 377   gag 379
             |||
Sbjct: 35699 gag 35701
```